

IN THE CLAIMS:

The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

Claims 1. - 19. (canceled).

Claim 20. (new): An image processing apparatus comprising:

a read-out unit reading out a photoelectric conversion signal accumulated in a pixel for a first accumulation duration, the photoelectric conversion signal including a first noise component;

an operation unit operating correction value corresponding to the first noise component on the basis of a correction value corresponding to a second noise component accumulated in the pixel for a second accumulation duration, a correction value corresponding to a third noise component accumulated in the pixel for a third accumulation duration, and information on the first accumulation duration; and

a correction unit correcting the photoelectric conversion signal using the correction value corresponding to the first noise component.

Claim 21. (new): An image processing apparatus according to claim 20, wherein the correction values corresponding respectively to the second and third noise components is obtained in advance.

Claim 22. (new): An image processing apparatus according to claim 20, wherein the correction value corresponding to the second noise component is information on fixed pattern noise of a plurality of the pixels.

Claim 23. (new): An image processing apparatus comprising:
a read-out unit reading out a photoelectric conversion signal accumulated in a pixel for a first accumulation duration, the photoelectric conversion signal including a first noise component;
an operation unit operating a correction value corresponding to the first noise component on the basis of a correction value corresponding to fixed pattern noise of a plurality of the pixels, a correction value corresponding to a second noise component accumulated in the pixel for a second accumulation duration, and information on the first accumulation duration;
and
a correction unit correcting the photoelectric conversion signal using the correction value corresponding to the first noise component.

Claim 24. (new): An image processing apparatus comprising:
a read-out unit reading out a photoelectric conversion signal accumulated in a pixel for a first accumulation duration, the photoelectric conversion signal including a first noise component;
a memory storing in advance a correction value corresponding to a second noise component accumulated in the pixel for a second accumulation duration and a correction value

corresponding to a third noise component accumulated in the pixel for a third accumulation duration;

an operation unit operating a correction value corresponding to the first noise component on the basis of the correction value corresponding to the second noise component stored in said memory, the correction value corresponding to the third noise component stored in said memory, and information on the first accumulation duration;

a correction unit correcting the photoelectric conversion signal using the correction value corresponding to the first noise component;

a control unit effecting control so that a focus adjustment operation is started in response to a first operation of an operation button and a photographing operation is performed in response to a second operation of the operation button on the basis of conditions adjusted based on the focus adjustment operation.

Claim 25. (new): An image processing apparatus according to claim 24, wherein said memory is a nonvolatile memory.

Claim 26. (new): An image processing apparatus comprising:

a read-out unit reading out a photoelectric conversion signal accumulated in a pixel for a first accumulation duration, the photoelectric conversion signal including a first noise component;

a memory storing a correction value corresponding to fixed pattern noise of a plurality of the pixels, and a correction value corresponding to a second noise component accumulated in the pixel for a second accumulation duration;

an operation unit operating a correction value corresponding to the first noise component on the basis of the correction value corresponding to the fixed pattern noise stored in said memory, the correction value corresponding to the second noise component stored in said memory, and information on the first accumulation duration,

a control unit effecting control so that a focus adjustment operation is started in response to a first operation of an operation button and a photographing operation is performed in response to a second operation of the operation button on the basis of conditions adjusted based on the focus adjustment operation; and

a focus adjustment unit performing the focus adjustment operation on the basis of the photoelectric conversion signal corrected by said correction unit,

wherein the first accumulation duration and the second accumulation duration are different from each other in length thereof.